GRUMMAN
planenews

A bimonthly publication for Grumman Aerospace Corporation employees

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X-29 gets ready to fly

Any day now, the Grumman X-29 technology demonstrator will take to the skies over NASA's Dryden Flight Research Facility at Edwards Air Force Base in California.

During a recent open house at Edwards, over 400,000 visitors viewed the latest X-plane — the government's first X-plane in more than a decade. The X-29 is Grumman's first X-plane.

At left, the X-29 sits in an aircraft hangar at Edwards ready to begin its career, while the C-47 (background) gets set to retire after a productive 41-year career. The C-47 is a military version of the DC-3.

Airborne simulator. *Landing the Space Shuttle is a totally unique piloting task and astronaut training is rigorous. Pictured above, the Shuttle Trainer Aircraft — a Grumman-rebuilt version of the Gulfstream II executive jet — makes a practice approach followed by a T-38 chase plane. More about the STA on page 8.*

What's inside

Grummanites at Glen Arm, Md., are building the Shuttle panels for the booster rockets. Read more about it on page 3.

Up in a puff. The new corporate policy on smoking in the workplace took effect on November 24. How does it affect you? See page 4.

Tis the season to party hearty . . . just don't get carried away — on a stretcher or to jail. Get the facts on page 5.

A new building for space station proposal work is now under construction behind Plant 5. For more information, read page 6.

Buckle up or pay up. Grummanites state their opinions on the new New York State law dealing with seatbelts. What do you think? Page 11.

Picnics, picnics, picnics. Stuart, Houston and GTSI throw their annual picnics. See pages 13 and 14.

news briefs

Space station bid

SAN DIEGO, CALIFORNIA, NOVEMBER 15, 1984 — General Dynamics Corporation and Grumman Aerospace, competing together for one of the prime contractor roles in NASA's space station program, today announced the addition of seven major subcontractors to their team.

As team leader, General Dynamics is responsible for overall system integration, while Grumman will focus on laboratory outfitting and thermal systems.

Hamilton Standard Division, United Technologies Corporation, Windsor Locks, Connecticut, and Life Systems Inc., Cleveland, Ohio, will conduct studies for the environmental control and life support systems. Ford Aerospace, Palo Also, California, is responsible for data management and communications systems. TRW Space and Technology Group, Redondo Beach, California, will define orbital maneuvering vehicle accommodation requirements. Ball Aerospace, Boulder, Colorado, will focus on science module requirements. Computer Sciences Corporation, Silver Spring, Maryland, is responsible for applications software, ground communications, and data systems; and Otha C. Jean and Associates, Huntsville, Alabama, will concentrate on customer accommodations and ground operations. General Dynamics will also draw upon the experience of its Electric Boat Division to augment life support, crew habitability, packaging, logistics, and maintainability aspects.

The team also submitted its proposal to the NASA Marshall Space Flight Center for a space station work package today. The package includes definition and preliminary design of pressurized common modules to be configured for habitability, science experiments, materials processing, manufacturing in space and logistics support.

Third quarter results

Earlier this month, Grumman Corporation reported a small increase in third quarter earnings from year-earlier levels, despite a 14 percent increase in sales. It cited increased research-and-development expenses for the X-29 experimental plane, and the A-6 Intruder and other programs.

Net income of $29,771,000 or $.99 per share on sales of $659,921,000 for the third quarter of 1984 was reported. For the same period in 1983, net income was $29,014,000 or $.98 per share on sales of $578,672,000.

For the nine months ending September 30, net income amounted to $80,308,000 — an increase of three percent over 1983. However, a greater number of average outstanding shares reduced earnings per share to $2.68 compared to the 1983 figure of $2.71. Sales totaled $1.9 billion, up 14 percent over 1983.

Aerospace sales rose approximately $201 million — 14 percent — in the first nine months of 1984, led by the E-2C, EA-6B, F-14, and EF-111A programs. Operating profits from these sales were about three percent lower in 1984 reflecting substantial research-and-development expenditures for the X-29, A-6 and various programs to enhance the company's electronic systems capabilities.

Grumman Data Systems showed a 13 percent rise in operating profits, while non-aerospace, commercial products revenues increased approximately $18 million in the 1984 period — bolstered mainly by aluminum truck bodies sales. Operating profits for this segment improved because of higher commissions on sales of Gulfstream III aircraft and reduced truck body and yacht programs losses.

"Our nine months results are in line with our expectations," says Chairman Jack Bierwirth, "reflecting the high level of research-and-development expenditures that will maintain the company's competitive edge in the military airborne systems market.

"During the third quarter, the Navy awarded us an R&D contract of more than $1 billion to develop upgraded versions of the F-14 Tomcat and A-6 Intruder. This work will extend the production life of these two major programs through the end of this century. Also, the X-29 technology demonstrator arrived at Edwards Air Force Base in California and is now in final preparation for first flight at the end of the month," states Bierwirth. "Such developments assure us of the significant growth we have anticipated and predicted for the company."

GAC gets awards

Grumman Aerospace recently received two awards from organizations that assist small and minority-owned businesses.

The most recent award of the two came from the U.S. Small Business Administration (SBA). The SBA awarded Grumman its Certificate of Appreciation for the second year in a row. The SBA is the Federal agency that aids small firms in becoming successful.

The certificate was presented at the recent SBA-sponsored First National Minority Procurement Fair, which was held in Washington, D.C. Grumman was one of a number of companies that received certificates. Accepting the award for Grumman was Haywood Hammond, manager, Minority Business Programs.

In addition, Grumman was recently the only large, private-sector corporation to be honored by a firm specializing in minority business development. That award came at a recent dinner-dance sponsored by David J. Burgos and Associates, Inc.

The firm, headquartered in Melville, Long Island, operates two Minority Business Development Centers with funding from the Minority Business Development Agency, U.S. Department of Commerce. The centers are located in Melville and in the Bronx.

Vice President Bob Simon, director of Corporate Procurement, accepted the award plaque at the dinner-dance. The plaque cites Grumman's "outstanding contribution in procurement of goods and services from minority-owned businesses."

Frank Sorrentino, Small Business/Minority Business officer for Grumman Aerospace, says the two awards are testimony to the good relationship that exists between Grumman and all its potential suppliers. "We've built a reputation for being extremely helpful and cooperative in our procurement from small businesses and those owned by minorities," says Sorrentino.

New assignments

Bill Fehrs has been appointed program director of Passive Wing Array Programs. He reports to Dan Heubner, Senior Vice President-Business Development. He can be reached on Ext. 59126 in Plant 5 (trailers).

In Technical Operations, Joseph Van de Wetering has been appointed E2/C2 Program Engineering director. Pasquale Mennona has been named director, Engineering for the F-14 Program. James Williams has been appointed director of Engineering for the A-6 Program.

Advisory panel

Norm Lewin, deputy director of Grumman Engineering, has been named to the Congressional Advisory Committee on Aeronautics.

The advisory panel advises Congress on aeronautical research programs, focusing on those conducted by the National Aeronautics and Space Administration (NASA). It meets four times a year to review such programs.

The holiday spirit

"Share the Holiday Spirit" is the theme of the campaign launched by the Volunteer Organization at the Nassau County Department of Social Services. This campaign is designed to give the neediest families in our community the opportunity to participate in the spirit of the Holiday Season.

Families living on Public Assistance have little or no money in their budget to spend on gifts for their children, and this can be a very bleak time of year for those who are without the resources to celebrate the Holidays.

The Social Services Volunteers of Nassau are inviting community, student and business organizations to join with them in helping to bring holiday joy into the homes of the less fortunate members of our community.

"Operation Toys" depends on the generosity of many groups who will collect, sort, package and distribute new toys to families in need. Last year over 1,000 gifts were distributed by the volunteers, yet not all the calls for help could be met.

The "Sponsor a Family" Program puts caring, concerned people in touch with families who are having extreme difficulty meeting their essential needs. Necessary household equipment, warm clothing, gift certificates for food and special equipment for children are some of the things provided in past years.

Donations can be made directly to the families or through:

Social Services Volunteers
of Nassau, Inc.
County Seat Drive
Mineola, N.Y. 11501

Please call Rita Lang, 535-4481, Volunteer Coordinator, for further information.

Hennen honored

Melvin Hennen has been appointed to serve as a Grand representative of the Grand Lodge of Switzerland for the Masons of New York.

Upon retiring from the U.S. Navy after 21 years, Hennen joined Grumman Aerospace. For the past 20 years, he has been active in the Grumman Glider Club. He also belongs to the Grumman Klown Club and has been portraying Santa Claus for a number of years.

Shuttle panel job lifts off at Plant 56

Each time one of the Space Shuttle Orbiters roars off from its launch pad, it is borne aloft "piggy-back" style on the back of a huge, brown, bullet-shaped fuel tank and two smaller, white booster tanks. Filled with hydrozene fuel, the brown center tank takes the orbiters out of the earth's atmosphere and into space.

Unlike the two booster tanks, which are discarded before the spacecraft leaves the atmosphere — and as such are recovered from the sea for re-use, the brown center tank is not reusable. After being jettisoned from the Orbiter, the tank disintegrates as it falls from space through the earth's atmosphere.

"That's where we come in," says Bob Valente, Production Manager for Machining Operations at Grumman's Plant 56 Glen Arm Operations. "Martin Marietta has the contract to manufacture the large shuttle fuel tanks and they have subcontracted the machining of the tank skins to Grumman here at Glen Arm," he explains.

The large fuel tanks are 154-feet long and 27.6 feet in diameter and are fabricated primarily from aluminum — about 54,685 pounds of it, in fact. "What we do at Glen Arm is to take the raw material aluminum shipped to us in complete tank-kits of 16 skins each, and machine them down to assembly weight," Valente notes.

The plant receives the unmilled skins for the fuel tanks at an average weight of about 2,500 pounds. When the machining operations are completed at the facility, the finished skins weigh an average of from 400 to 700 pounds.

"Step by step, the way this contract works is that we receive the raw material aluminum pre-forms in tank-set quantities from Kaiser Aluminum in West Virginia. We take the preforms and mill them down to what we call a 'T' integral stiffened skin that is 1.25-inch thick and 11-feet wide by 20-feet long. It's strictly a machining operation here — no special processes, no chemical treatments, no forming or anything like that," Valente points out.

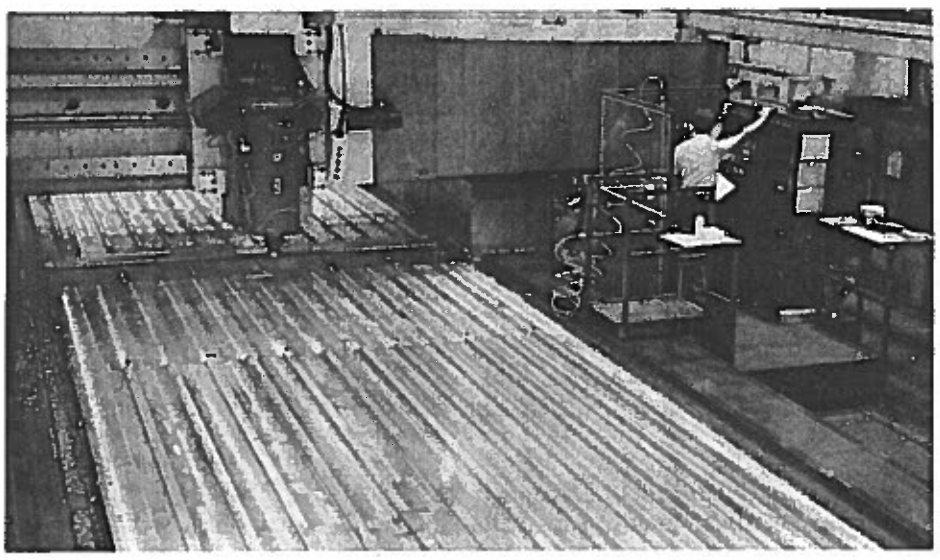
Brand new mill

The milling of the tank skins is accomplished on one machine — an Onsurd three-axis, two-spindle computerized numerical control (CNC) skin-mill. "The Onsurd is an aluminum cutting skin mill which we recently overhauled and updated with all the latest advances in machine technology. In essence, we have a brand new CNC machine here that is perfectly suited for this job," asserts Valente.

As a backup to the Onsurd, there is a second two-spindle CNC machine located on the same 12-foot wide, 100-foot long work bed. The milling spindles are set on independent movable "slides" which can be moved into position in place of each other on the work bed.

Valente points out that the 11-foot width of the fuel tank skins is the main problem most mills would have with the job. "Most mills are not designed to handle anything that wide. Fortunately our Onsurd's bed is 12-feet wide, so it's no problem for us."

"One of the major factors in our favor when Marietta looked at us as a subcontractor was our ability here in Glen Arm's Plant 56 to store the raw materials involved. They can ship the raw material directly to us — we machine the skins, and send them back the finished product. This system is both time and cost efficient," notes Valente.



Machining marvel. *All of the milling of the aluminum tank skins for the Shuttle Panel Program is accomplished on Plant 56's recently overhauled and updated Onsurd aluminum cutting mill.*

Grumman's current contract with Martin Marietta is for 10 complete ship sets of 16 panels each. As the Space Shuttle program continues to grow and regular flights increase in frequency, there will be a need for more of the large fuel tanks.

"We look at this program as another foot in the door for NASA space work. Since the Shuttle Orbiter was designed as a reusable vehicle, we must concentrate our efforts on those features of the program that offer recurring contract work, such as the fuel tanks," says Valente.

"Grumman's success with the tank skin program also proves to NASA that the company has the ability to manufacture large complex machine parts — maintaining high quality standards with on time delivery and within the cost guidelines," he adds.

Seven machine operators, material handlers and hand finishers and others of the over 250 Grummanites working in Glen Arm's Plant 56 will be dedicated to the Shuttle panel program. First deliveries of the ship-sets is scheduled for March 1985 with the current contract running through the early summer of 1986.

"Glen Arm's machining operations gives Grumman the option of doing a great deal of its own machining in-house. It also enhances its image as an efficient and competitive figure in the industry. And, in this industry, you need to be vigorously competitive in all facets of your operation. Plant 56 gives us that edge," states Valente.

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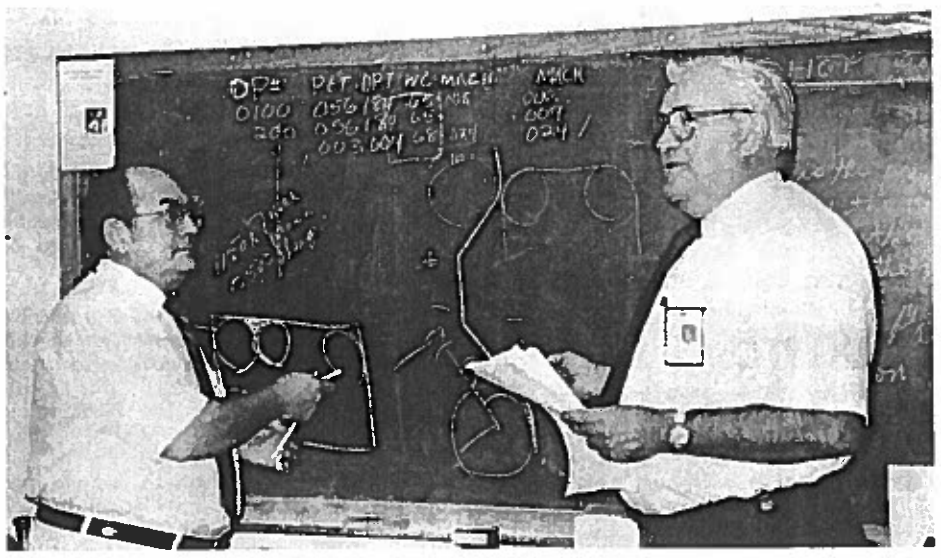


Shuttle scheduling. *Bob Valente, Production Manager for Machining Operations (L) and Glen Arm Plant Manager John Otterstedt are working on a tight schedule to produce 10 complete ship sets of 16 panels each for the Shuttle Panel Program.*

Holiday survival tips

What should you look for when you buy a Christmas tree? What are your responsibilities if you have a holiday party and serve alcohol to guests? What should you consider when you plan holiday gift ideas?

The National Safety Council has a brochure available, "How to Survive the Holidays," which answers these questions and provides safety tips on other holiday safety items. These include information on winter travel safety, fire prevention and poison prevention.

For a free single copy of the brochure, send a self-addressed, business size stamped envelope along with your request to the Public Relations Department, National Safety Council, 444 North Michigan Avenue, Chicago, Illinois, 60611.

Corporate smoking policy now in effect

You may have noticed quite a few "no smoking" signs going up in the last week. That's because Grumman has adopted a more stringent corporate policy regarding smoking in the workplace.

The new policy, which went into effect November 24, applies to office workplaces of Grumman Corporation, its subsidiaries, and its divisions.

The following have been designated as no-smoking areas: conference rooms, meeting rooms, classrooms, auditoriums, restrooms, libraries, medical facilities, hallways, elevators, computer rooms, and areas where smoking is normally prohibited for safety reasons (for example, fuel labs).

All cafeterias, buffeterias, lunchrooms, and employee lounges are restricted-smoking areas. They all must include a contiguous no-smoking area of not less than one-half of both the seating capacity and floor space of the facility.

In addition, each office Grummanite may designate his or her immediate working area as a no-smoking zone. The individual may post it as such with an appropriate sign, which may be obtained from any Employee Services Office.

"Immediate working area" is defined as the Grummanite's office, workstation, cubicle, etc., if the area is enclosed or partially enclosed. If the person's working area is not enclosed, immediate working area is defined as the space occupied by his or her desk and any adjacent visitors' chairs, file cabinets, or office equipment operated by the person as part of his or her job (and continuous with the person's work space).

Although the policy addresses primarily the office workplace, should *any* nonsmoking employee request that his or her work area be relocated because of proximity to a smoker's area, a *reasonable* effort shall be made to honor that request.

The policy also states, "in any Grumman facility where applicable law is more restrictive than this policy, the facility will comply with the law in all cases."

At the same time that the company has adopted the new policy, it has initiated the FreshStart program in cooperation with the American Cancer Society. The program provides information and strategies to help participants stop smoking.

Response has been extremely favorable. In November the company ran nine concurrent sessions in Bethpage, Woodbury, Great River, Calverton, and Melville. Grumman greatly encourages smokers to sign up, and as evidence of this commitment, contributes $25 to the American Cancer Society for each person who completes the program.

Future sessions are scheduled for December and will be continued through 1985. Why not join the many Grummanites who want to "kick the habit"? Fill out the coupon below and mail it to Quit Smoking, A41-GHQ.

Give gift of life

This holiday season, give the gift of life — donate blood at one of the following 1984 Grumman Blood Drives.

December 10
Pl. 25 Conf. Rm. A
5 p.m. to 9:45 p.m.
(Night shift drive)

December 11
Pl. 25 Conf. Rm. A
9 a.m. to 2:15 p.m.

December 12
Pl. 25 Conf. Rm. A
9 a.m. to 2:15 p.m.

Quit smoking

I'd like to quit smoking. Sign me up for the FreshStart Program.

Name.....

Mail stop..... Ext .....

Workshift ..... Plant .....

Mail to: Quit Smoking, A41-GHQ

Leave the driving to Donna. *Grummanites (L to R) Cecil Sturrup, Grace Harris, Charlie Olseon, John Cherry, Nick Kameris, Fred Jansky, Tom DaMico, Donna Gains, Dan Groh, Robert Lee, and Billy Spencer travel from their Riviera Beach (Fla.) homes to Stuart Operations via a vanpool. Donna Gaines is the driver.*

Vanpools save money for Stuart commuters

Thirteen Grummanites leave the driving to fellow Grummanite Donna Gaines every workday. They are the first participants in the Stuart, Florida area to join the state's Share-A-Van Program, sponsored by the Florida Department of Transportation.

Donna and her riders commute 70 miles a day from their homes in Riviera Beach to Stuart Operations. They share the total expenses for the van — about $53 per rider every month. Donna doesn't pay a fare. For driving and caring for the van plus collecting the fares, she gets a free commute and personal use of the van on nights and weekends. Fares are based on the number of passengers and the daily roundtrip mileage.

Some riders estimate that they used to spend $90 to $100 a month commuting. "Vanpools are very economical," says rider Bill Spencer. "Besides saving money, it saves wear and tear on your personal car. It also gives you the feeling of being chauffeured to work."

The vanpool program is available to all Floridians. Once a group of 10 to 15 people (with similar workhours and commute) is identified, a van is supplied. There is no lease or purchase involved. Grummanites can call (305) 352-7463 for more information.

Personals

To Grumman ESO, friends, and coworkers: sincere thanks for your kindness and compassion upon the recent passing of my mother Mary. **Richard E. Donnan**

My family and I wish to express our sincere thanks and appreciation to the ESO, our friends and co-workers for their kind expressions of sympathy during the recent loss of my mother Rose Pizzichemi. **Rose P. Bruno**

My family and I wish to express our sincere thanks and appreciation to my friends, co-workers and ESO for their kind expressions of sympathy during the recent loss of my father. **Laura Lambert**

The family of the late John F. White Jr. wishes to express their sincere thanks to all of John's friends and co-workers for their sincere and kind expressions of sympathy on the occasion of his untimely death. **Rose and Denise White also Jan and Ken Chmela**

Our thanks to all Grummanites and the Grumman Retiree Club for their kindness and sympathy during our recent loss. **Theresa Timmers and Family**

My family and I would like to thank all my friends, co-workers and ESO for their kind expressions of sympathy during the recent loss of my husband. Words could never express our appreciation. **Anna Bonura**

My family and I wish to thank all our friends at Grumman and ESO for their understanding and kind expressions of sympathy during the recent loss of my mother. **Tony Asaro**

I wish to extend my appreciation to my friends, co-workers and ESO for the flowers and get well wishes I received during my illness. **Jessie Wieliczko**

Holiday safety tip: Don't imbibe and drive

The holiday party season will soon be in full swing — and many folks will be lifting their holiday spirits with spirits. Unfortunately, some will get carried away — to jail or on a stretcher.

A simple word to the wise is 'moderation.' If you are going to celebrate with alcohol, make sure you know your limit. And more importantly, under no circumstances mix drinking with driving.

Facts on the road

According to the National Safety Council, there are approximately 148 million drivers on the roads and about 100 million drinkers. The equation works out to about 51,000 highway accident deaths each year and alcohol is a factor in at least half those deaths.

Each year, alcohol-related motor vehicle accidents result in property damage, insurance costs and medical bills in excess of several billion dollars, as well as serious injuries to approximately 750,000 people — and several hundred thousand arrests.

In recent years, society, which once passively condoned drunken driving, has cracked down on the deadly practice with a vengeance. Laws have been enacted to stiffen penalties for the offense. Across the country, law enforcement agencies have stepped up their efforts to catch drunken drivers. Today, if you are caught driving while under the influence, you are likely to face stiff fines, loss of your driver's license and even a jail sentence.

Even a first offense can result in a suspension of your driver's license which, in turn, can severely hinder your ability to travel to and from work. Job jeopardy is a very real problem for those convicted of drunken driving. Besides the loss of driving priviledges, a jail sentence of as little as 30-days can often result in job dismissal.

If you are planning to attend a holiday party and will be driving, the safe thing to do is to stay away from alcohol completely. But, if you do drink, make sure you know your limits. (See table on next page) While problem drinkers with arrests for offenses involving alcohol are the biggest problem on the roads, the so-called social drinkers can be just as dangerous. Very often the person who insists on driving because he or she "don't feel any effects," actually is not feeling anything at all.

The fact of the matter is that with every drink you take you automatically raise your blood alcohol content (BAC). Medically speaking, alcohol is a drug that depresses the central nervous system as a general anesthetic, slowing the activity of the brain and spinal cord. It can severely inhibit your reflexes and motor coordination — slowing your response time considerably.

While it is true alcohol affects different people differently, the way it works on the body is predictable and preventable. No digestion takes place in the stomach. Therefore, alcohol is absorbed directly and rapidly into the bloodstream. Alcohol is absorbed faster if the stomach is empty — so it helps to eat a good meal if you are going to be imbibing.

All 50 states have laws against driving under the influence of alcohol. Indeed, most have greatly increased the penalties for this offense in recent years. Most states base their determination of a person's level of intoxication on the blood alcohol concentration as determined by either a "breathalizer" test or direct analysis of the blood. The presumptive level of intoxication varies by state, but most accept a reading of .10 as under the influence.

A B.A.C. level of .10 can be reached with as little as five beers

(Continued on page 6)

Have a safe holiday. *Conviviality reigns throughout the holiday season, but all the exuberance could end in tragedy. Play it safe — don't drink and drive.*

Party tips

If you are planning to host a holiday party this season, here are a few tips that could help you make the event fun and safer for everyone.

As host, it is your duty to keep an eye on your guests and make sure that no one overindulges to the point where they might cause harm to themselves or others. In some areas legislators have been pushing for laws that would hold hosts legally responsible for guests who left their party drunk and subsequently injured themselves or others in an automobile accident.

Suffolk County has recently instituted a program with the cooperation of county restaurant and tavern owners designed to insure safer roads without dampening the party. Based on similar programs in place for several years in several Scandanavian countries, Suffolk's "Designated Driver Program," offers the best of both worlds.

Bartenders in the program will provide non-alcoholic beverages free to one individual in a group of three or more who has been designated beforehand as the driver for the evening. With this system, the friends of the designated driver can be sure of a safe and sober ride home no matter how much they quaff themselves.

You can provide a similar option for your party guests by making sure that you serve both non-alcoholic and alcoholic beverages. You should also serve food whenever you are serving alcohol. Having something in their stomachs will slow down the rate their bodies absorb the alcohol. And, in the event one or more of your guests has more to drink than they should, be sure to call a taxi or make arrangements for them to stay over until the next morning.

Retiree obituaries

Henry Augustin of 3662 Naomi St., Seaford, N.Y., died October 4, 1984. He retired in 1974.

Dominick Mucci of 908 Penn Rd. East, Lehigh Acres, Fla., died October 6, 1984. He retired in 1971.

Giuseppe Agosta of 5572 Purdy La., W. Palm Beach, Fla., died October 14, 1984. He retired in 1960.

Walter J. Rotermund of 121 Pennsylvania Ave., Medford, N.Y., died October 16, 1984. He retired in 1984.

John S. Petro of 655 So. 5th St., Lindenhurst, N.Y., died October 16, 1984. He retired in 1963.

Arthur B. Ritz of 808 Manton St., Holiday, Fla., died October 19, 1984. He retired in 1968.

Bernard C. Borgwardt of 109 Biltmore Rd., Savannah, Ga., died October 20, 1984. He retired in 1977.

John J. Rathbauer of 451 N. Windsor Ave., Brightwaters, N.Y., died October 22, 1984. He retired in 1975.

George H. Fischer of 23324 Balmoral La., Conoga Park, Calif., died October 28, 1984. He retired in 1980.

Don't drink and drive

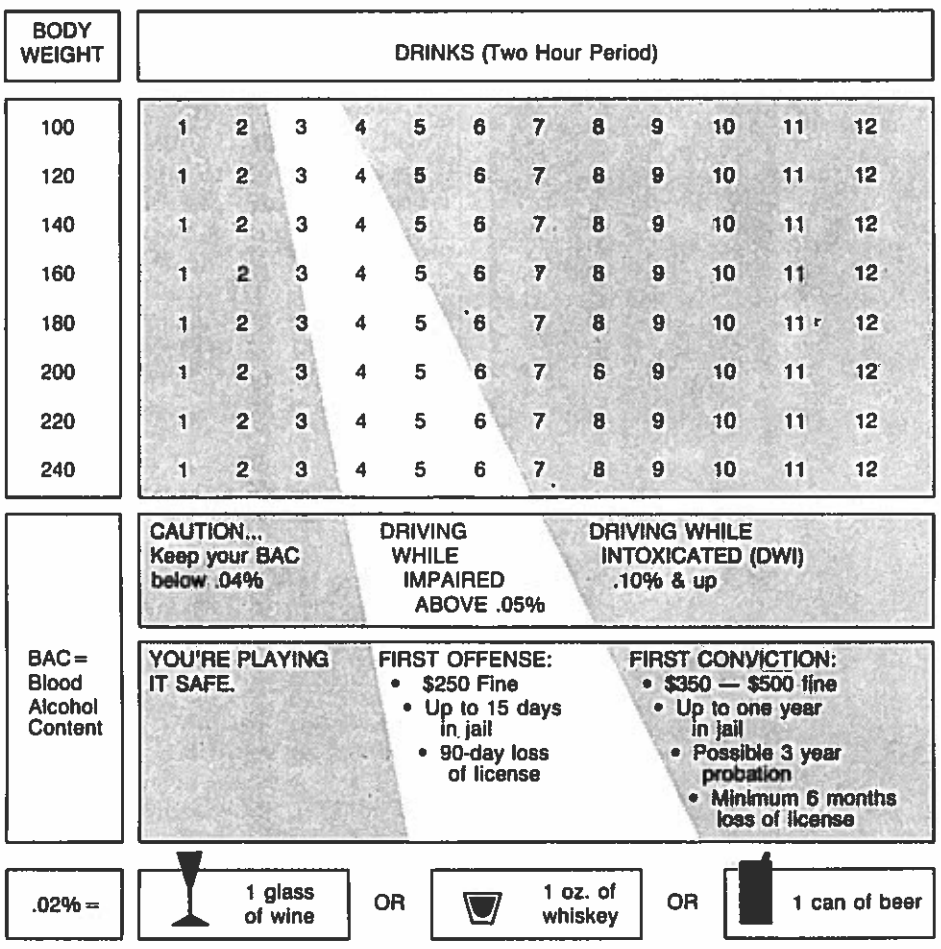
(Continued from pg. 5)

drunk over the course of one hour for a person of about 180 pounds. In fact, a regular 12 ounce serving of beer equals a B.A.C. per drink of .02; wine (a 3 ounce serving) and hard liquor (one ounce of whiskey, vodka, etc.) also equal .02. A person's weight affects how much and how quickly they will absorb alcohol. A lighter person reaches a level of intoxication faster than a heavier individual.

The body can only process alcohol at a rate of about .02 percent per hour, which means it only takes a very few drinks in a single hour to reach the .10 level. Time honored "remedies" for overindulging in drink such as cold showers, fresh air, exercise and black coffee have absolutely no effect on your B.A.C. Once alcohol is in your blood only time can remove it.

Surveys show that the chances of having an accident increase as your B.A.C. level rises. You are twice as likely to be in an accident with a B.A.C. of .05 percent; seven times as likely at the legal intoxication level of .10 percent; and your chances rise to 25 times greater with a B.A.C. of .15 percent. Approximately 55 percent of drivers involved in fatal crashes had blood alcohol levels of .10 percent or higher.

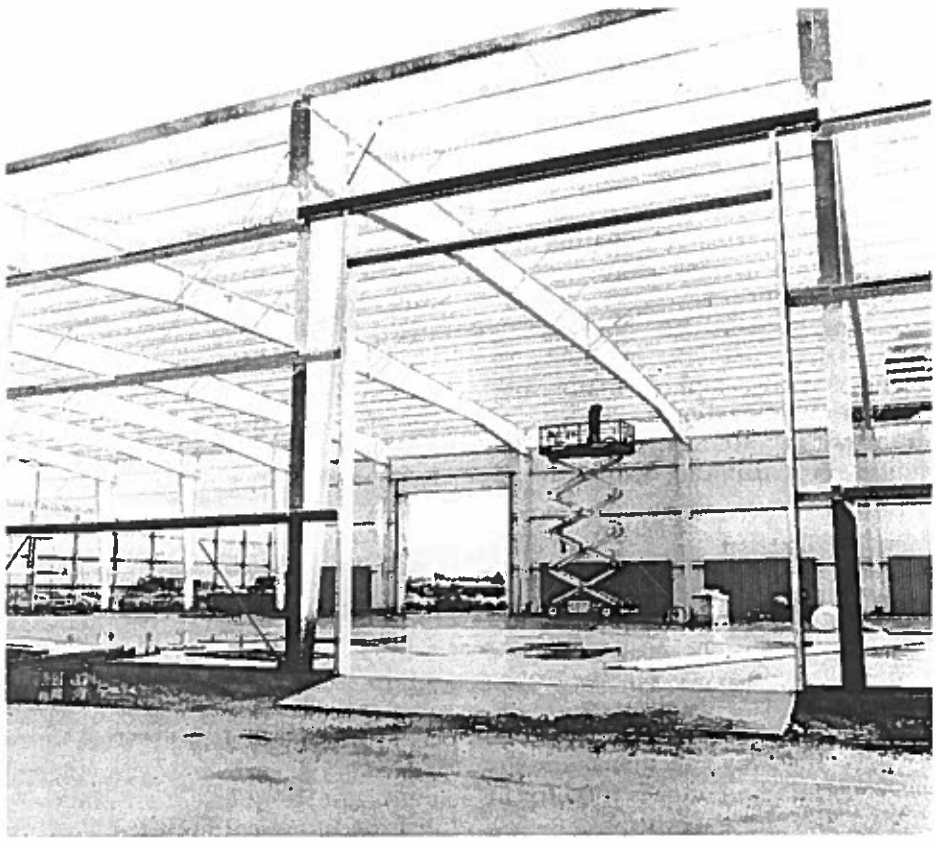
No one is trying to put a crimp in your holiday celebrating. On the contrary, with a little common sense you can help make this a more enjoyable and safe holiday season for everyone. If you are planning to tip your cup at home or at a party take a moment to think first. Eat something first so that you have something in your stomach to slow down the rate of absorption. Drink slowly — sip, don't gulp — and give your body time to handle the alcohol. Know what you are drinking — how strong it is and how hard it will hit you. Set a limit and stick to it. Be honest with yourself. If you know you are past your limit be smart — don't drive. Have a safe and happy holiday!


BODY WEIGHT
DRINKS (Two Hour Period)
100 1 2 3 4 5 6 7 8 9 10 11 12
120 1 2 3 4 5 6 7 8 9 10 11 12
140 1 2 3 4 5 6 7 8 9 10 11 12
160 1 2 3 4 5 6 7 8 9 10 11 12
180 1 2 3 4 5 6 7 8 9 10 11 12
200 1 2 3 4 5 6 7 8 9 10 11 12
220 1 2 3 4 5 6 7 8 9 10 11 12
240 1 2 3 4 5 6 7 8 9 10 11 12
CAUTION... Keep your BAC below .04%
DRIVING WHILE IMPAIRED ABOVE .05%
DRIVING WHILE INTOXICATED (DWI) .10% & up
BAC = Blood Alcohol Content
YOU'RE PLAYING IT SAFE.
FIRST OFFENSE:
• $250 Fine
• Up to 15 days in jail
• 90-day loss of license
FIRST CONVICTION:
• $350 — $500 fine
• Up to one year in jail
• Possible 3 year probation
• Minimum 6 months loss of license
.02% =
1 glass of wine
OR
1 oz. of whiskey
OR
1 can of beer

Cash in now

Some people are still holding on to the old Pride of Workmanship award certificates. While the program is still in effect, it is now operating on a different level under the title: "Master Craftsmanship Program."

The new catalogs of prizes for the Master Craftsmanship Program are now available in the Employee Services Offices along with order forms and addressed, postage-paid envelopes. The old Pride of Workmanship award certificates can be redeemed for the new Master Craftmanship certificates up to Friday, December 21. For further information regarding interchangeability of Pride of Workmanship, ESO "funny money," and Master Craftsmanship award certificates, contact Edith Behrmann at Ext. 117-7728, mail stop A20-06.



Man at work. *A construction worker checks out the roof of the new building behind Plant 5 that will house the space station mockup and serve as a storage area, too.*

Space station mockup building erected at Pl. 5

A new building taking shape outside Plant 5 will soon house the newest generation of Grumman space scientists.

The new structure, dubbed the Space Station Mockup and Storage Building, is now going up just northwest of the plant. "As its name denotes, roughly equal amounts of floor space will be devoted to each activity," says George Haraden, Factory Planning manager.

The pre-engineered building will measure approximately 180 by 100 feet, for a total of 18,000 square feet of floor space. It is a clear span structure with no intermediate supporting columns. The building will consist of one floor with a 30-foot, high-bay ceiling.

Occupancy is scheduled for mid-January. At any given time, about 30 people will work in the building. The low concentration of personnel stems from the building's role as a storage and display area.

Among those who will move in will be engineers, technicians, and other people from Grumman's Space Station Programs department. Working with them will be a crew from the Product Development Operations Center (PDOC), who will be on hand to translate their concepts into a three-dimensional mockup.

There will also be a contingent of Grummanites staffing the storage area. The construction of this new building enabled the company to demolish the old cold-flow room, a corregated metal structure behind Plant 5 that originally served as a testing facility during the Lunar Module program and was later used for storage.

Presently, trenches are being dug for the building's utilities systems by Bass and D'Alessandro, the architect/builder of this project. "By the end of this month, the outer walls will be in place," says Charlie Diamant, Facilities Engineering project engineer. "After that comes the interior activation, or 'stuffing,' phase."

Yet another facilities project is under way at Plant 12. Recently, a cluster of trailers was moved there from Grumman Headquarters. The trailers are now occupied by about 80 people from Manufacturing and Technical Services. "This is the first phase of a total modernization plan for the Plant 12 complex," says Vince Gonzalez, Facilities Engineering project engineer.

Also housed in the trailers is a room with GEMS (Grumman Engineering and Manufacturing System, Grumman's computer-aided design and manufacturing system) terminals.

The previous occupants of the trailers were Grumman Data Systems employees, who have been relocated to the new headquarters addition.

Urrutia tops list of Project Sterling winners

Cost savings is the name of the game, and those that help the company achieve it are entitled to share the benefits through the Project Sterling Award Program. With the company-wide push for cost containment, the list of Grummanites who are offering their suggestions and reaping rewards is growing by the month.

The big winner in recent months was Plant 110 senior radio frequency engineer Maurice Urrutia. While working on the development of the ICAP II EA-6B cooperative countermeasures system (CCM), Urrutia noted a need for a means of checking out the system and its software development. He designed and fabricated a circuitry system which provided a simulated aircraft system to test the CCM against.

Urrutia's suggestion saved the expense of buying and operating a complete extra set of black boxes to test the EA-6B's CCM on, resulting in first year savings estimated at $340,595 to Grumman and a Project Sterling award of $4,875 for himself.

Urrutia says that he used his award money to put a new roof on his house in time for the winter and do a few other home improvements. The remainder was tucked away in an IRA account for his retirement.

Paul McGuire, a buyer in Plant 30 Central Procurement, put his keen eye to use when he rescued 36 forgings for the F-14 canopy actuator that were being stored in a warehouse from being scrapped.

McGuire discovered that the forgings — which had been procured for one program and inadvertantly scheduled for scrapping in the course of paperwork red tape — could be saved for use later. His suggestion saved the reprocurement of the forgings with a first year savings of $43,020 to the company.

For his rescue mission, McGuire was awarded $2,365 with which he says he has bought some oil for the winter and plans to take his family on a Christmas vacation to Florida.

Keeping an eye out for improvement opportunities also paid off for Robert Sorrentino. Sorrentino, an electrical assembler in the Plant 44 braiding room, noticed that his department's harness boards, used to construct the electronic harnesses for aircraft, were being damaged in storage in an outdoor shed. He suggested that the boards be stored in Plant 44's high rise indoor storage area where the plant's bulk stock is kept.

The move eliminated costly repairs and replacement of damaged boards and saved time and trouble in transporting the boards to the work area. Sorrentino spent his $1,175 Project Sterling award on a new furnace for his house noting, "It couldn't have come at a better time."

Time was also on Plant 44's Margaret Adesso's mind when she suggested purchasing a Grumman part for an electronic assembly as an individual kit rather than in pieces as in the past.

"I've worked on the production floor, so I know that a great deal of time is wasted when the part pieces are missing or are wrong. Working in automation in the stock room I found I was also wasting a great deal of time in counting out the parts. So I thought it would be faster and more accurate to purchase the parts in bagged individual kits — and it really is working out well," she says.

Adesso used her $1,190 Project Sterling award to buy a new storm door and an octagon shaped window for her house as well as cleaning up a few charge accounts in time for holiday shopping.

Grummanites Terry Jeanette and Let Jung put their heads together to solve a problem that had been

(Continued on page 10)

Super saver. *Plant 40 engineer Maurice Urrutia picked up a cool $4,875 for his money saving idea to provide a simulated aircraft system in the System Integration Test Site.*

Turned-on savers. *Let Jung (top) and Terry Jeanette, Plant 4 instrument engineers, designed a way of turning power on and off in their Plant 5 instrument test lab without waiting for the main power switch to warm up. They each received a Project Sterling award of $575 for their energy efficient idea.*

Climate conscious. *Electrical assembler Robert Sorrentino suggested that harness boards which had been stored outside Plant 44 be brought inside thereby eliminating costly repairs and replacement of damaged boards.*

Time saver. *Plant 44 stock-keeper Margaret Adesso received a Project Sterling award of $1,190 for her suggestion to purchase a harness board part as a complete kit thus saving time consuming and inaccurate manual kit assembly.*

Keen eye. *Paul McGuire, a buyer in Plant 30, was rewarded with a $2,365 Project Sterling award for spotting and rescuing a set of forgings that were about to be scrapped.*

For perfect shuttle landings, STA is a

Guiding a 197,000-pound spacecraft back to a two to three-mile-long landing strip is a maneuver requiring considerable precision. And the astronauts aboard each space shuttle mission have achieved smooth landings in the face of a weighty challenge: getting it right the first time.

With no room for error, it's not surprising that flight training for shuttle landings is rigorous. Ironically, a modified corporate jet plays a key role in this training: the Shuttle Trainer Aircraft (STA). The STA is a Grumman-rebuilt version of the Gulfstream II executive jet. At present, the National Aeronautics and Space Administration (NASA) owns two STAs; Grumman Aerospace is producing a third, with delivery to NASA slated for February, 1985.

That there is no opportunity for a repeat landing owes to the fact that shuttle landings are powerless — the shuttle glides back to earth for a distance of 4,400 miles. The landing approach is also at a very steep angle — 17 to 19 degrees.

'In my discussions with people who have actually flown the shuttle and compared it to the STA, they've all been in agreement that it does a . super job.'

To make the STA function like the shuttle, on-board computers are programmed with software containing math equations of the shuttle's motions. Additionally, its engines operate in reverse thrust during a simulated landing, thus mimicking the shuttle's unpowered glide.

"I think we all feel it's an invaluable training aid," comments Astronaut Dan Brandenstein, a captain and pilot in the U.S. Navy. Brandenstein was pilot, under Commander Richard Truly, of STS-8, which was launched from Kennedy Space Center on August 30, 1983.

"All the commanders have said generally that the STA is a very good simulation of the flying qualities of the orbiter," he continues. "You have a real flying machine and an actual visual scene, as opposed to a generated scene (in a simulator), which just doesn't have all the cues. There's something in a visual scene — texture, shadows, depth perception — that makes the landing task easier when you're actually looking out the window of the shuttle."

Astronaut Dave Griggs will be a mission specialist aboard STS-51E, scheduled for February, and a pilot on a later flight. He formerly was a research pilot at Johnson Space Center and later became chief of Shuttle Training Aircraft Operations. As such, he played a large role in training astronaut-pilots prior to becoming one himself. Among the 75 astronauts, some are pilots, some are mission specialists, and others, like Griggs, are both.

"In my discussions with people who have actually flown the shuttle and compared it to the STA, they've all been in agreement that it does a super job," says Griggs. "It's not an exact replication of the shuttle's landing characteristics, but it is of such high fidelity that the small nuances aren't overly important."

In NASA nomenclature, the space shuttle's "pilot" is actually the copilot. Piloting the spacecraft is the mission commander. But they receive the same flight training. "We do an equal number of approaches in the STA," says Brandenstein. "And should the commander have a system malfunction on his side, or be for some reason incapacitated, the pilot is in a position to land the shuttle."

During a shuttle mission, the pilot monitors cockpit instrumentation, monitors all the spacecraft's systems, and calls out flight information—including airspeed, altitude, and keypoints. The pilot verifies that the speed brakes are closed, lowers landing gear, and continues callouts during a landing.

Before assignment to a specific shuttle mission, the astronaut-pilot's training includes a minimum of 20 flights aboard the STA. Generally, two practice approaches are made during each two-hour STA flight. Ten of these practice flights cover the basics, while the remainder are advanced in nature.

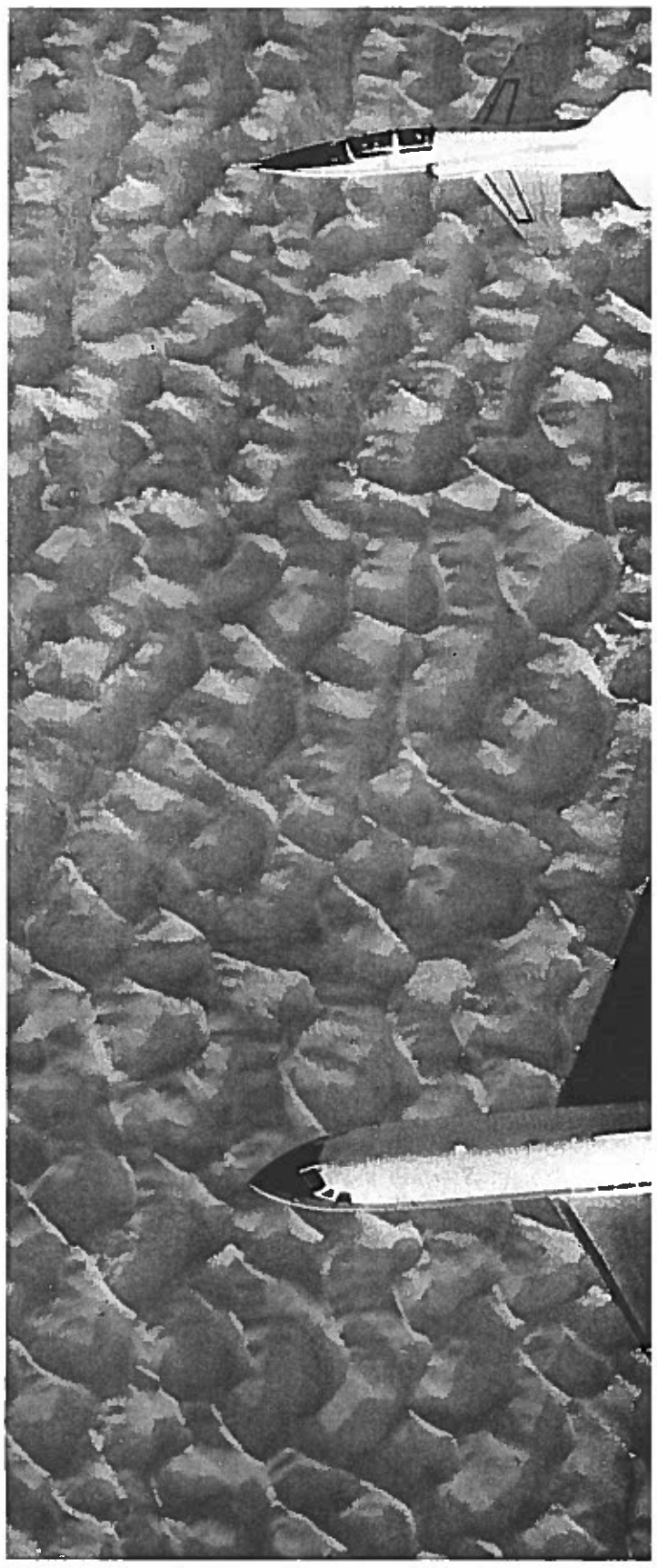
Nine months before a mission, the astronaut is trained on the STA once a month. Six months before the flight, the regimin is stepped up to one flight a week, which is continued until the mission. Again, this is a minimum figure — in actual practice, many astronauts spend a great deal more time in the STA, due to the peculiarities of each mission.

Most flight training takes place at Holloman Air Force Base in Alamogordo, New Mexico. The space shuttle actually landed at Holloman at the end of its third mission — the base serves as an alternate landing site for Edwards Air Force Base, California, and Kennedy Space Center, Florida. For that mission, Griggs was CAPCOM at Mission Control in Houston.

Practice approaches are made from altitudes ranging up to 35,000 feet. But it's from 10,000 feet on down that the STA displays its forte. "At those altitudes, the STA is essentially pointed at the runway, so you have the visual cues of seeing the runway coming at you, nose-down," says Griggs. "Our approach profile is 17 to 19 degrees — hence the term deadstick. The normal approach for an air-carrier-type plane is about two-and-one-half degrees."

In a practice landing, the STA never actually

Aboard Challenger. *Astronaut Dan Brandenstein is shown during STS-8, which was from August 30 through September 5, 1983. He was a pilot on that mission of the orbiter Challenger.*

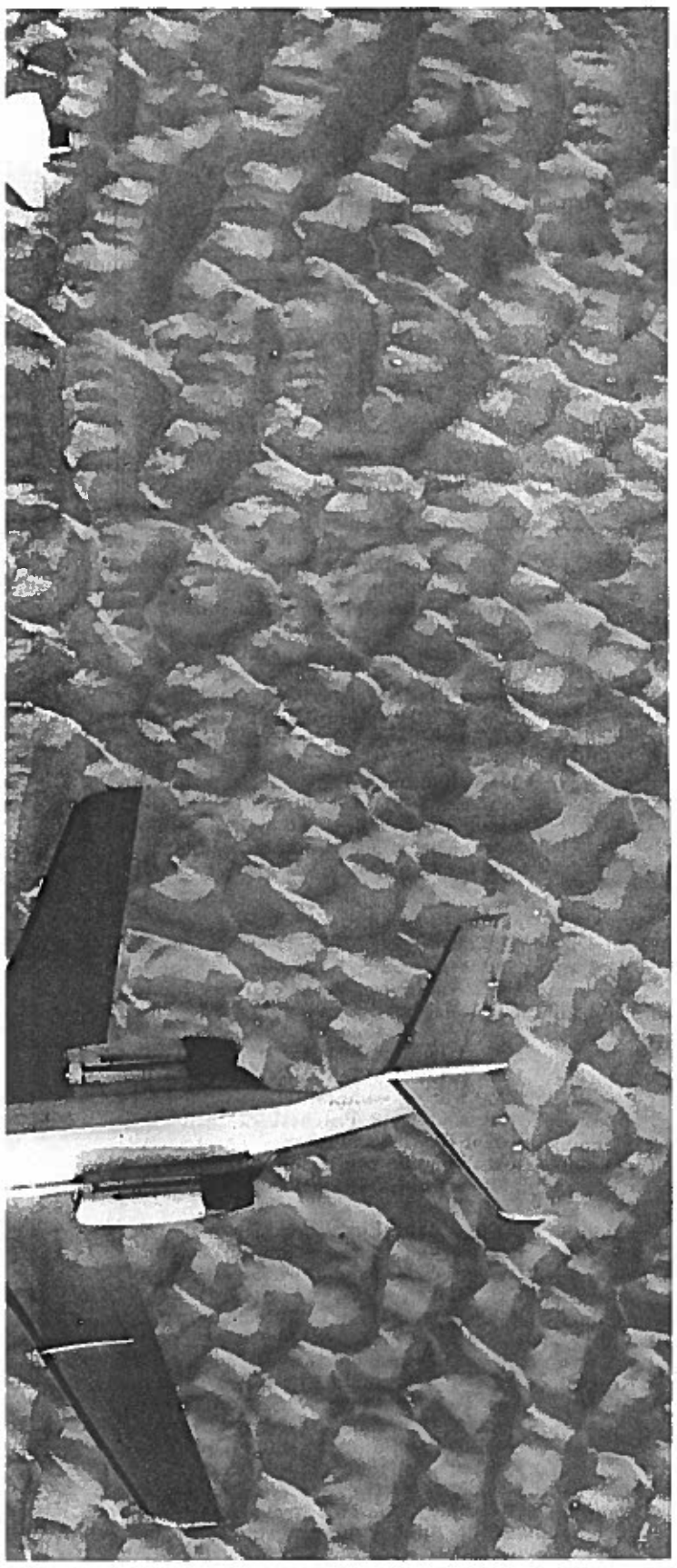


Smooth landing. *The Shuttle trainer Aircraft makes its the aircraft never actually touches ground — the landing above the runway, the same level as on the Shuttle. M Mexico.*

a training tool that's hard to beat

touches the ground. The maneuver ends with the STA's gear about 22 feet above the runway. At this point, the astronaut-pilot's eye level is about 33 to 34 feet up, the same level it will later be during an actual shuttle landing. Completing the approach, the reverse thrust is disengaged, and the STA reverts to a normal climb-out.

Some of the most important parts of the training regimin are at the 15-20,000 feet range. At those altitudes, astronauts practice positioning the STA onto the heading alignment circle (HAC). The HAC is an imaginary, figure-eight-shaped position in the air that ensures the STA—and later the shuttle — is in the right place for landing. Its juncture is where the plane will touch ground. The HAC is programmed into the logic of both planes' computers, and both also have video displays depicting the circle and the position of the STA/shuttle.



its approach at an angle of 17 to 19 degrees. In practice, ding maneuver ends with the pilot's eye level 33 to 34 feet . Most training is done at Holloman Air Force Base, New

The STA continues on a steep descent down to 1,850 feet, whereupon it undergoes a "flare" — the approach profile tapers off to a one-and-one-half degree inner glide slope. At between 30 and 50 feet, the aircraft is leveled.

Two people accompany the astronaut being trained aboard the STA: an instructor pilot and a flight simulation engineer. The latter is responsible for entering information, such as weight and altitude densities, into the STA's computers to instruct it to simulate the shuttle. This data may be varied in order to cause to STA to fly differently in preparation for a particular shuttle mission, or for a crisis.

"When you first begin training, you're rough," says Brandenstein. "You learn as you go along, and you develop some of your own techniques for consistently making smooth landings. During training, the instructor and engineer set up abnormal situations that you have to handle. And they give you emergency-type situations — such as stuck speed brakes — which you have to learn to deal with. Surprisingly, you have quite a bit of flexibility. Once again, the STA does a good job of impressing that upon you."

Immediately before and after each flight, there are briefings and debriefings — which during the start of training may run as long as two hours. "Right before the flight, you will discuss what you'll do aboard the STA, what you might expect to see, and ways to correct for disturbances," Griggs notes. "During the debriefing, you discuss what you did and saw. Often, you're not sure if they're representative of the shuttle, or just a quirk in the model. As you become more experienced, these sessions become shorter. They become less a matter of learning new things than perfecting skills. But not are less than 20 to 30 minutes long."

Practice . . . perfect. *Astronaut Dave Griggs will be a mission specialist on STS-51E, this February. He previously headed Shuttle Training Aircraft Operations at Johnson Space Center.*

Missions often have new and unique requirements, and the STA occasionally helps work these out. For example, the STA enabled the astronauts and the NASA team to prepare for the shuttle's first night landing, during STS-8.

"At night in the middle of the desert at Edwards, there aren't a lot of visual cues," Brandenstein remarks. "So we had to develop a lighting system that would enable us to get on the correct approach path."

Both the STA and the T-38 (a one-seat jet utilized by astronauts to hone their flying skills between missions) were flown in the course of developing this lighting system. The STA was also flown for practice night approaches. "I myself had about 250 night approaches before my mission," Brandenstein notes. "Interestingly enough, a couple of the aids we developed for night use have turned out to be really handy in the daytime."

'The approach and landing are completely unique piloting tasks . . . . . We get to the point where for a specific mission we've had over 250 practice approaches.'

Once practice makes perfect, a deadstick landing will be smooth. Since the plane is on a 19 degree descent, what those on board will feel is increased gravitational pull — typically, about one-and-one-half Gs. But after being weightless in orbit for a week, this force can seem much greater to the shuttle astronaut.

Griggs considers the approach and landing of the space shuttle a critical phase in the flight. "The shuttle is a rather difficult vehicle to land," he says. "It has some rather slow response characteristics and pitch characteristics that force the astronaut to think quite a bit ahead of the vehicle. You've got to ensure that you've got the vehicle positioned exactly where you want it from 10,000 feet on down, because the tolerances are very slim. You've got to put it on a finite piece of concrete at a precise airspeed."

Brandenstein points out that with all the training an astronaut-pilot receives, he or she reaches the point where landing the shuttle won't be difficult. "The approach and landing are completely unique piloting tasks, since they're different from anything a pilot has flown before," he remarks. "And you're doing it with a very large vehicle that's fly-by-wire. We get to the point where for a specific mission we've had over 250 practice approaches."

At this point in Brandenstein's career, he's made about 650 total approaches in the STA. "So you can see, we do quite a bit of practice flying to prepare ourselves to fly the orbiter," he concludes.

More Project Sterling winners

(Continued from page 7)

bothering them for some time. The pair suggested isolating the power supply for the individual systems in the Plant 5 Ground Test Instrumentation Group (GTI) from the original main power on/off switch by installing individual switches.

The move eliminated equipment failure and loss of time that stemmed from the wait for the old system to warm up. "We used to have to switch the main power supply on everytime we used any portion of the system and then wait for it to warm up. It was a waste of time. So when they were working on the power supplies for the X-29 in GTI it seemed like a logical opportunity to make a few changes," they commented.

Both Jeanette and Jung work together in Plant 4 as electronic technicians and both say they are saving the $575 each received from Project Sterling for some Christmas shopping.

In addition to the top award winners, Project Sterling prizes were won by the following Grummanites:

$1,050 — Richard Benedict, Leadworker, Pl. 08, Dept. 1063. **$1,005** — Antonio Tenreiro, Eng. Instru. Project, Pl. 07, Dept. 748. **$895** — George Bennett, Analyst, Pl. 43, Dept. 2117. **$740** — Joseph Broderick, Elect. Tech., Pl. 43, Dept. 2063. **$645** — Arthur Donato, Jr., Tech. Lab. Meas Std., Pl. 06, Dept. 032. **$560** — Joseph Zinzi, Assembler Riveter, Pl. 02, Dept. 047. **$500** — Frank Thiery, Milling Mach. Oper., Pl. 03, Dept. 004. **$430** — Rosie Daily, Photo. Processor, Pl. 03, Dept. 012; Odell Scalone, Tech. Lab., Pl. 14, Dept. 502. **$400** — Thomas Jones, Press, Pl. 03, Dept. 003. **$350** — Val Burt, Supervision, Pl. 30, Dept. 179. **$340** — Ernest Godbee, Leadworker, Pl. 66, Dept. 650.

$315 — Salvatore Assenza, Keyworker, Pl. 02, Dept. 038. **$280** — Cesidio Pietrometire, Engineer, Pl. 15, Dept 965. **$275** — William English, Planner, Pl. 08, Dept. 1116. **$220** — Randy Ehrenfeld, Stuart, Pl. 77, Dept. 825; Shelly Woods, Stuart, Pl. 77, Dept 285. **$215** — John Heermons, Engineer, Pl. 88, Dept. 624; Ed McDonald, Engineer, Pl. 88, Dept. 624. **$210** — Edwin Cayea, Retired. **$205** — George Boehle, Technician, Pl. 06, Dept. 1034. **$200** — Thomas Panepinto, Engr. Aid, Pl. 05, Dept. 380; Gerald Dorsey, Foreman, Pl. 04, Dept. 105; Alexandro Conti, Leadworker, Pl. 04, Dept. 057; Pino Guarino, Leadworker, Pl. 02, Dept. 001; Nicholas Marchese, Engineer, Pl. 30, Dept. 303; Louis Milone, Expediter, Pl. 02, Dept. 223.

$190 — Michael Rocco, Mach/Inst. Sheetmetal, Pl. 04, Dept. 086. **$185** — George Sturiale, Press Oper., Pl. 02, Dept 003. **$165** — Gary Stadler, Elec. Assembler, Pl. 43, Dept. 2066; Linda McCabe, Elec. Mfg., Pl. 43, Dept. 2066; Ray Johnson, Assy-Elec., Pl. 52, Dept. 044. **$160** — John Rafferty, Oper. Assembly Riveter, Pl. 02, Dept 038. **$150** — Douglas Schilling, Plann. Reqmt., Pl. 30, Dept. 182. **$140** — Robert Barreiro, Oper. Assy. Riveter, Pl. 06, Dept. 1006; Patrick Pallizzi, Elect. Tech., Pl. 04, Dept. 063; Joseph Sargent, Elect. Tech. Pl. 04, Dept. 063. **$130** — Henry Gage, Retired; Anthony Ingoglia, Staff Assistant, Pl. 02, Dept. 155. **$120** — Herman Kovler, Leadworker, Pl. 02, Dept. 206. **$110** — George Ponick, Inst. Bench Subassy., Pl. 03, Dept 026; Tom Christiansen, Oper. Assemb. Riveter, Pl. 06, Dept. 1026; Walter Dachel, Keyworker, Linial Assembl., Pl. 06, Dept. 1026.

$100 — Steven DeBatt, Inst. Elect. Test Ops., Pl. 06, Dept. 1034; Joseph Garappolo, Tech. Electron, Pl. 06, Dept. 1034; Steve Lewkowitz, Mach. Machinist, Pl. 05, Dept. 095; Robert Hester, Tech. Electronics, Pl. 43, Dept. 2063; Garry Hopkins, Carpenter, Pl. 12, Dept. 306; Jeffrey Wagner, Planner, Pl. 06, Dept. 1231; William Hamilton, Keyworker, Pl. 06, Dept. 1029; Edward Clark, Operator, Pl. 06, Dept. 1089; Mark Deazley, Engr. Software, Pl. 07, Dept. 577. **$85** — Anthony Weippert, Roll Form Oper., Pl. 02, Dept. 003. **$80** — John Rafferty, Oper. Assembly Riveter, Pl. 02, Dept. 038; Tony Rocchio, Engr., Pl. 44, Dept. 2852; Ronald Vogt, Engr., Pl. 44, Dept. 2852; Michael Toma, Machining, Pl. 56, Dept. 184.

$75 — Mark Lento, Millwright, Pl. 44, Dept. 2306; John Squillance, Plumber, Pl. 03, Dept. 613; George Valentine, Leadworker, Pl. 02, Dept. 306; Robert Devine, Installer, Pl. 05, Dept. 053; John Sahm, Opr-Mach., Pl. 66, Dept. 658; Wayne Sterling, Proc. Mach., Pl. 56, Dept. 184; Aubrey Cooper, Cproc. Mach., Pl. 56, Dept. 184; Daniel Azzato, Leadworker, Pl. 06, Dept. 1039; John Rotzman, Opr. Mach., Pl. 02, Dept. 016; Jack Carrodo, Mechanic, Pl. 02, Dept. 016. **$70** — James Jack, Router Oper., Pl. 03, Dept. 004; Albert Victorino, Group Ldr., Pl. 17, Dept. 137; Mike Steed, Oper. Asst. Riveter, Pl. 66, Dept. 658; Joseph Amoroso, Instr. Engr., Pl. 03, Dept. 005; Robert Fodale, Instru. Engr., Pl. 03, Dept. 005; Adolph Marinucci, Leadworker, Pl. 03, Dept. 005; Stephen Alois, Router Oper., Pl. 03, Dept. 005. **$65** — Theodore Steffens, Leadworker, Pl. 02, Dept. 009; Anthony Rodolico, Keyworker, Pl. 43, Dept. 2053; Adam Carr, Elec. Assemb., Pl. 43, Dept. 2053; Albert DeMaeyer, Grp. Ldr., Pl. 30, Dept. 192.

No pint-size effort. For being the 5,000th Grummanite to donate blood in 1984, Robert Schwarz (R) got a special T-shirt. At the presentation were Chauncey Smith of the Grumman Blood Program and Libby Hormann of the Long Island Blood Services. Grumman gives these T-shirts to 100th pint donors. To date, 7,200 pints of blood have been donated by Grummanites in 1984.

obituaries

GENE R. STRAUB of Avionics System Test, Plant 43, died October 23 at the age of 26. He had been with the company since 1984 and resided at 39 Silver St., Patchogue.

WILLIAM FINDLAY of Specifications, Plant 31, died October 31 at the age of 51. He had been with the company since 1965 and resided at 17 Donald St., Port Jefferson Station.

HELEN MALACHOWSKI of Management and Staff, Plant 56, died October 27 at the age of 60. She had been with the company since 1967 and resided at 4407 Langtry Dr., Glen Arm, Maryland.

WILLIAM BODE of Management and Staff, Plant 2, died November 5 at the age of 48. He had been with the company since 1957 and resided at 7 Seaman Neck Rd., Huntington Station.

WALTER W. ZUFALL of Material Control, Plant 40, died October 29 at the age of 61. He had been with the company since 1965 and resided at 6 Garden Ave., Massapequa.

PETER J. OBEDZINSKI of Design Support, Plant 31, died November 3 at the age of 64. He had been with the company since 1943 and resided at 995 Washington Ave., Plainview.

calendar

Aikido Club: (Martial Arts) every Wed., 5 p.m., black belt instructors, Recreation bldg. Beginners class. Guests welcome. M. Brooks, 391-6157 or H. Brondo, Ext. 56472.

Alcoholics Anonymous: every Mon., 4:30 p.m., Plant 15, conference room C, closed meetings; Personnel Relations, Ext. 53521. Calverton: Chemical Dependency Discussion Group, every Mon., 4-5 p.m., Flt. Test Center, new conference meeting room, open meeting, Personnel, 369-6759 or C. Robb, Ext. 117-7038.

Amateur Radio Club: every 3rd Wed. of the month. Meeting held in the white shack on top of Plant 5 by the blue ball, 5 p.m. B. Wengler, Ext. 50188.

Chess Club: every Fri., Recreation bldg., 5 to 11 p.m., beginner to expert, guests welcome. K. Marley, Ext. 54901 or N. Corso, Ext. 59600.

Coin Club: (Calverton) every Fri., noon lunch, Plant 5, A-6 Action Center conference room. Grumman employees welcome. N. Evangelides, Ext. 117-7242.

Computer Club: 1st Mon. of every month, Recreation bldg., 7 p.m. Computer discussion and demonstration; beginner to advanced programming. Guests welcome. J. Hayne, Ext. 54945 or H. Baluta, Ext. 50389.

Dance Club: every Wed., 5-8 p.m., Recreation bldg. Guests welcome. S. Koppell, Ext. 115-3800.

Duplicate Bridge Club: every Thur., Recreation bldg., 6 p.m. Guests welcome. P. Gill, Ext. 115-8414.

Equestrian Club: every weeknight, Knoll Farm, Brentwood, 6 p.m. Grumman employees and immediate family only. P. Morrison, Ext. 57505.

Fencing Club: every Wed., 4:45-6:30 p.m., Recreation Bldg. Free instructions, guests welcome. J. Hayne, Ext. 54945/P. Chaldaris, Ext. 53486.

Folk Dancers Club: (Calverton) every Thurs., 2nd floor, Plant 6, lunchtime, Grumman employees only. J. Hamelman, Ext. 117-6835.

Grumman Baseball Card Club: first Wed. of every month, 12-12:30 p.m., Plant 25 conference room. S. Froehlich, Ext. 52508.

Klown Klub: every second Tues. of each month, Recreation bldg., 4:15 p.m. Guests welcome. M. Deyns, Ext. 57564.

Karate Club: every Tues. and Thurs., Recreation bldg., beginners-4:30 to 5:30, advanced-5:30 to 7:00 p.m., black belt instructors, physical and mental development. New students at the beginning of each month. Guests welcome. T. Ortiz, Ext. 58497.

Model Railroad Society: every Wed., 7 p.m., Recreation bldg., Regular meeting. Guests welcome. R. Muntz, Ext. 56865

Magic Club: last Wed., of every month, The Magic Shop, Mid-Island Plaza, Hicksville, 4:45 p.m. Guests welcome. M. Lichaw, Ext. 56114.

Roller Hockey Club: Meets every Sun., 1 p.m. For more information, employees can call Arnie Pritchett on 934-8402.

Roller Skating Club: every Thurs., Levittown Skating Rink, lessons at 6:30 to 7:30 p.m. Guests welcome. H. Denen, Ext. 52291.

Stamp Club: First three Wed. of every month, 5-6 p.m., Plant 35 cafeteria, trading sessions and discussions. S. Hoops, Ext. 53926.

Table Tennis: every Fri., Recreation bldg., 4 p.m., and on Sunday at 9 a.m. Open to all, both Grummanites and general public. Jim Pope, Ext. 53008.

Tap Dancing Club: every Mon., Recreation bldg., beginners 4:30 to 5:30 p.m., Intermediate 5:30 — 6:30 p.m. Guests welcome. P. Tropea, Ext. 52260.

Grumman Toastmaster Club: every Wed., GHQ bldg., third floor conference room A, 5 to 7 p.m. Grumman employees only. A. King, Ext. 56779 or P. Ivy, Ext. 52931.

Theater Guild: Tues., December 4, Annies, Bethpage, 5:30 p.m. General meeting and discussion on our next production, "Tribute". Guests welcome. Bob Greaker, 934-8188.

what do you think?

On December 1, 1984 the new seatbelt law will take effect in New York State. Violators will be subject to a fine as of January 1, 1985. We recently asked fellow Grummanites in Plant 15 what they thought of the new seatbelt law. What do you think?

Jim Carmelitano

I think that the new seatbelt law is very good. I had an incident where my two young children were in the back seat of my two-door sedan. They were not wearing seatbelts. When I had to make a short stop, both children were thrown from the back seat up to the front of the car. They landed on the passenger side on the floor. I thank God to this day that they were not seriously hurt. But I feel that it could never hurt to wear the seatbelt. If it saves one life, it's worth it.

Phil Ivone

I am totally against seatbelts. I think that each individual should have enough common sense to know if he/she needs to wear a seatbelt. I hate to see individuals starting to dictate to us, as to what we can do and cannot do. At the present time I do not wear a seatbelt. But maybe if I were to have a serious accident, I would change my mind about the law.

John Rappa

I am against the new seatbelt law. I feel that it's infringing on my rights. I don't need someone telling me that I have to wear my seatbelt. I have been wearing the seatbelt for about five years now. I have had a few minor car accidents, but seatbelts did not make any difference. The accidents themselves were not that significant. We encounter dangerous things everyday. I just don't think we should be told that we must wear seatbelts or pay a fine of $50.

Joe Amen

I think the seatbelt law is one of the best laws to come along. I really feel that it will save a lot of lives in 1985. I have never had a car accident, but I do wear the seatbelt. When going around turns or sharp corners, I find that the seatbelt tends to hold me in place better. However, I also feel that the law is one that will be very difficult to enforce, but only time will tell.

Barbara Wilkeyson

I don't think there should be a law telling me that I must wear a seatbelt. I feel that if you want to put a seatbelt on, it should be your own decision and not someone else's. I feel that the law is taking away my right to make my own decisions.

Gail Krempasky

I feel that it is a very good law. I have a very active young son. If he did not have a seatbelt on, I would not be able to drive the car. He is a very active child. If he wasn't buckled in, he would be jumping from the back seat to the front all the time. Therefore, it would be impossible for me to drive. I know that eventually it would lead to a car accident if I had to keep watching what he was doing.

Peter Blaschuck

I don't think it's against my constitutional rights. I feel it's a good law. I've only had one accident in which I had my seatbelt on and I believe it helped. I am sure that if I did not have the belt on my injuries would have been much more serious than they were. I think it should be mandatory that everyone must wear a seatbelt.

Jean Fattarusso

I don't think the seatbelt law is good, because if there is ever a car fire or explosion, you might not have time to unbuckle the belt, or the belt might jam. Then where are you? I have heard of cases where a person was trapped in the car because of the seatbelt. Therefore I feel we should not be told that we must wear these belts or we'll be fined $50. I really feel it should be up to your own discretion.

Al Miller

I think it's a good law. All your airlines and pilots are required to have seatbelts. It has been a proven fact that seatbelts save lives. I have seen some auto races where a car has been totally demolished, but the driver walked away without a mark because he was belted into position. I feel that the new law will save a lot of lives.

Safety tips for skaters

Freezing temperatures are a welcome attraction for wintertime recreational participants, including the more than 18 million Americans who enjoy ice skating.

The National Safety Council reminds ice skaters to choose their skating surfaces cautiously, especially if the surface is frozen over a body of water that may be deep.

"If a supervised rink is not available, the best skating surface is a shallow pond or a flooded field," said Tod Turriff, manager of the Council's public safety department. "Ideally, the water should be no more than waist-deep and the ice should be a minimum of four inches thick."

The strength of the ice should also be given careful consideration, Turriff said.

"The ice can be weakened by a warm sunny day," he said. "This thawing and refreezing can create a dangerous situation, even if the ice is thicker than four inches."

Turriff suggests avoiding ponds where this condition has occurred or any newly frozen surface until the ice has had a few days to solidify strongly.

"The Council recommends choosing a site where the ice has been officially checked to ensure a safe skating surface," he said. "This precaution should minimize the risk of an accident occurring."

If the ice breaks and a skater falls in, Turriff recommends the following:

- The skater in the water should not try to hoist himself or herself up on the ice, for it will probably break off and dunk him or her again.
- The person should extend his arms onto the ice to spread out his or her weight. A sharp object such as a key or a knife can be used to dig into the ice to obtain a handhold. The victim should then extend to a horizontal position and pull forward while kicking their feet.
- Once out of the water, the person should not stand. Instead, he or she should roll until well away from open water.
- If it is necessary to attempt a rescue, lie flat on the safe part of the ice and extend a pole, a rope, a branch or a hand to the submerged party. If bystanders are available to assist in the rescue, form a human chain across the ice, each grasping the ankles of the one ahead, pulling the victim out of the water.
- If the victim is conscious, get him/her to shelter as soon as possible. Remove the person's wet clothing, wrap in warm blankets and offer warm liquids. If necessary, the individual should be given immediate medical assistance from a properly trained person.

Buckle up or pay up

As of December 1, 1984, you'll be breaking the law in New York if you don't buckle up your car seatbelt. Warnings will be issued until January 1, 1985, when penalties up to $50 will be imposed.

Under this New York State law, all front seat occupants must wear a seatbelt. In addition, all children under 10 — no matter where they sit — must buckle up. All children under four must be secured in an approved child safety restraint device.

The driver is responsible for any passenger under the age of 16. Passengers 16 and over are responsible for themselves. There are exemptions . . . medical — for a physical condition which prevents use of belts (a physician must give the exemption); occupants of cars manufactured before seatbelts were required; and emergency vehicles, taxis, and large school buses are also exempt.

If you have any questions, call (518) 474-5777 or write to: Governor's Traffic Safety Committee, Empire State Plaza Swan Street Building, Albany, N.Y. 12228.

service milestones

40

George R. Wurston, Mach. Ops. (3)
Lorraine H. Vogel, Beth. Ops. Admin. (5)
Edward S. Siebert, Resource Mgmt. (5)
Robert M. Edgerly, Comp. Sys. Ops. (35)
Frank J. Leone, St. Augustine (265)

35

Frank Jagiello, Sub Assy. (1)
Alfred J. Picone, Display Instr. & Lt. (1)
Raymond C. Zeller, Bus. Mgmt. (2)
Robert J. Sousa, I.E. Flow Seq. Plan. (3)
Hugh Tonner, Struct. Subs. (6)
John T. Anderson, Manpower & Budg. (35)
Richard H. Smith, PMM — Mil. & Space (40)

30

Ralph W. Lehr, Electro-Mech. Line (1)
Franz H. Paehr, Q.C. Mgmt. (1)
Loretta A. Dempsey, Employee Serv. Center (2)
William F. Zukoski, Wt. Optim & Tech. Dev. (5)
George C. Lindstrom, A6/EA6B Join/Str. (6)
Stanley G. Misiewicz, Ind. Eng. (7)
Joseph S. Giordano, FAC Admin. (30)
Frank Koch II, Aerophysics (35)
Roger B. Kendall, Eng. Admin. (35)
Salvatore C. Diliberto Jr., Elect. Lia. Eng. (43)

25

Wallace R. Terrel, Tool Maint. & Repair (1)
Francis V. Benfield, Maint. (6)
Robert J. Moschinger, ILS Elect. Pkg. (6)
Frank J. Densieski, Avionics Dev. (7)
Michael E. Fucito Jr., Rel. Prod. Supt. (7)
Nicholas S. Just Jr., Qual. Lab. (10)
Charles Zinna, Trans. Maint. (20)
Bruce E. Catterson, Mass. Prop. Anal. (35)
Ervin R. Grill, Avionics Des. Mgt. (40)
Thomas R. Blenk, Tech Ops. Mgmt. (66)
Richard R. Lehecka, Field Ops. (26)

W.R. Terrel — F.V. Benfield — R.J. Moschinger — F.J. Densleski

M.E. Fucito Jr. — N.S. Just Jr. — B.E. Catterson — E.R. Grill

T.R. Blenk — R.R. Lehecka

Grummanites with 25 years of service in 1984 will receive their watches on Tuesday, December 4, at the Colonie Hill. Thousands of other long-term service Grummanites will also attend the luncheon.

Plane News next edition: December 14

Calverton softball champs. *The 1984 Calverton softball league champions are the Outlaws: (first row, L to R) Charlie Tyler, Dan Azzato, Sam Savino, Tom Derbyshire, Rudy Novissimo; (2nd row) Tim Haas, Tom Gancio, Ray Pelis, Butch Buffa, Tony Sarlo, Jim Sempey; (3rd row) Larry Brown, Joe Caruso, Scott Seaman, Carl McDonald, Joe Lengyel; (4th row) Gary Hoeffing, Glenn Weyant.*

Recreation unveils '85 vacation agenda

If you are trying to decide what to do on your vacation in 1985 then Grumman Recreation may have just what you're looking for. The Recreation Department has compiled a listing of its proposed travel destinations for the new year and, as usual, it stretches from the Poconos to Peking.

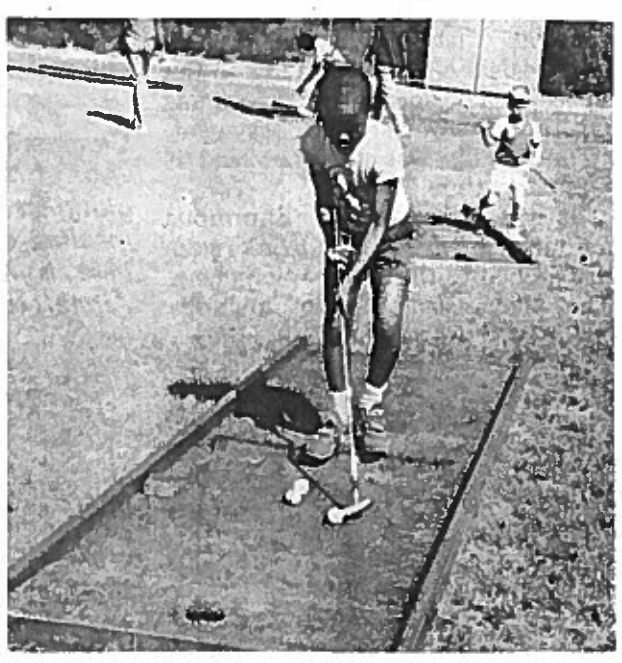
Recreation's travel booklet as well as reservation forms for the trips *will not be available until early January*, except for the January and February trips. However, the following list should give you an idea of just where you could be going in 1985:

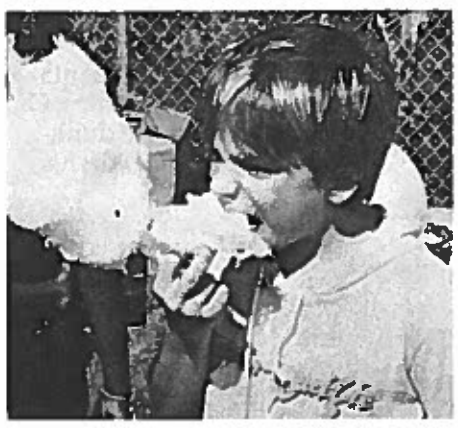
January — a ski weekend in the Poconos. *February* — a ski weekend at Killington, Vermont, and a 10-day jaunt to Mexico. *March* — the annual weekend bus trip to Woodloch Pines, seven-days in sunny Puerto Rico, and eight-days in Rio de Janiero. *April* — a four-day bus trip to Washington, D.C., and Yugoslavia for 10 days. *May* — a seven-day Caribbean cruise, and a 14-day tour of Austria, Germany and Switzerland. *June* — four-day bus trip to Hyannis, Cape Cod, and Italy for 14 days. *July* — a seven-day bus trip to Canada, 10 days in the British Isles, and a vacation in Alaska. *August* — a four-day bus trip to the Catskills, and 14 days in Hawaii. *September* — Spain for 14 days, and a 23-day coast-to-coast bus tour. *October* — a four-day bus trip to Vermont, and 10 days behind the Iron Curtain in Russia. *November* — a Thanksgiving week in the Bahamas; and 10 days in Ireland. *December* — a Christmas holiday in Florida for seven days at Disney World and the Epcot Center, or Bermuda for seven days. No month has been set yet for proposed trips to Israel and the Orient in the fall of 1985.

Polytechnic reunion set

The first annual holiday cocktail reception, hosted by the Polytechnic Long Island Alumni Association, takes place on Thursday, December 6, at 6 p.m. All Polytechnic alumni are invited to attend the festivities at the Milleridge Inn on Hicksville Road (Rt. 107) and Jericho Turnpike. Guests are welcome. For more information, call Leo Esnes, Ext. 51740.

All eyes to the skies. *Picnickers at the Stuart Ops. picnic look to the skies for the Chuting Stars and the Hellcat-Zero dogfight.*





Chuting Stars shine at Stuart

Stuart Operations broke a two-year streak of bad luck in weather and hosted the 20th Annual Grumman Family Picnic on November 10, under beautiful, sunny skies.

Over 2,000 — including 591 retirees — enjoyed the action-packed day in the sun. A real crowd-pleaser was the U.S. Navy parachuting team called the Chuting Stars. Three times, the Chuting Stars wowed the audience as they performed numerous spiral descents, turns and stalls, and "biplane" formations with one man atop another's shoulders. A super highlight of the show occurred when the Chuting Stars jumped at 13,000 feet and formed a starburst pattern with smoke-cannisters attached to their boots.

Another picnic treat was seeing the world famous Grumman F4F Hellcat and Japanese Zero stage a dogfight over the picnic grounds. For many, it was the first time they had seen the famed fighters of World War II in action. Of course, the agile Hellcat downed the Zero every time.

Between shows, there was plenty to do, too. A carnival midway offered all picnickers a chance to try their skills and luck. A band provided music to dance. And, there were mounds and mounds of cotton candy and sno-cones to keep one's tummy full — not to mention, the traditional picnic fare of hot dogs, hamburgers, slaw, chili, corn and beer.

In recent years, the annual Stuart event was staged the last Saturday in October. Inclement weather forced the Stuart picnic crew to try their luck by slating the affair in November. It looks like the Stuart Family Picnic is definitely worth the extra two-week wait. It was a blast!

Hosts with the most. *On November 9, Stuart Ops. hosted the annual Grumman Retiree Club reunion. The following day, Stuart Grummanites invited 590 retirees to their picnic.*

Houston family throws a big Texas barbeque

On Saturday, October 13, there was a party in the Mission Control Center at NASA Johnson Space Center, Houston, Texas, to celebrate another successful landing of the Space Shuttle Columbia. At the same time, there was an even bigger celebration going on at the JSC Gilruth Center.

The Grumman Houston family and their friends — some 1,200 strong — were enjoying their annual family picnic. Old friends were re-united and new friendships established in the traditional Grumman family style, reports Pat Shiffle of Grumman Houston. "There was no way to tell who works on assembling an offshore well logging unit or spends their time working on the Space Transportation Systems Operations Contract bid," says Pat. "The family was together and it was party time."

It was a great party. Enormous amounts of food and drink were dispatched to the hungry picnickers. The Texas-style menu included brisket, ribs, chicken, smoked sausage and Italian links. Of course, there were also hot dogs — New York style, not to mention plenty of corn on the cob and the trimmings.

Oldtimers game. *Tom Izzo, supervisor of Maintenance, pitches in the oldtimers softball game for Grummanites over 40. Guarding third base is Art Hamblin, Mechanical Aircraft superintendent.*

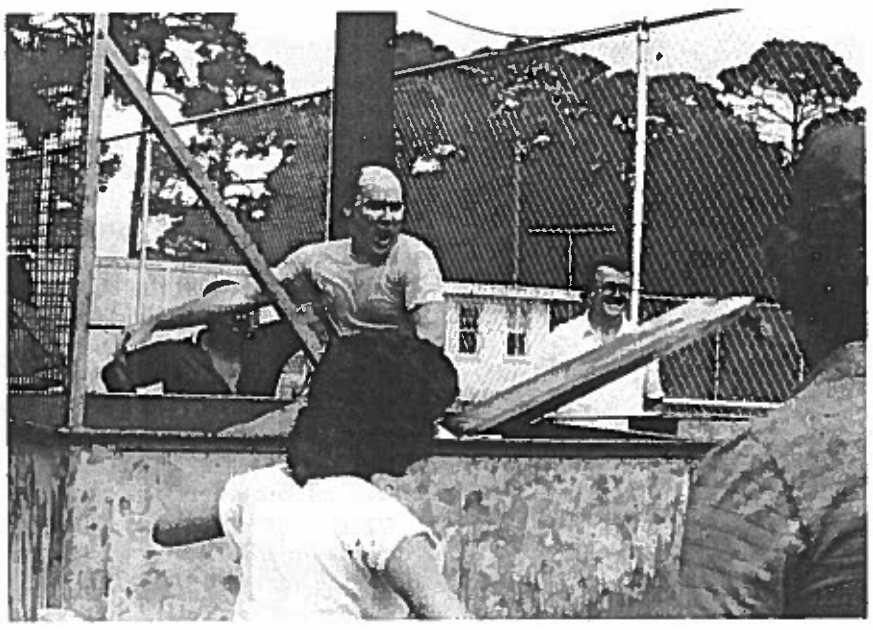
1, 2, 3, pull. *Young adults and the big boys test their strength in friendly games of tug-of-war at the Grumman Houston family picnic.*

GTSI first picnic: one for history books

Over 1,250 Grummanites and their families can boast they attended the First Annual Grumman Technical Services Inc. (GTSI) Family Picnic. The historic event took place on October 6 near the Kennedy Space Center in Florida.

Threatened by light showers in the early morn, the picnic turned out to be a sunny event. Attendees had plenty to do — from hot air balloon rides to dancing to train rides. Of course, there was plenty eat. Barbequed beef and chicken topped the picnic menu.

Most popular event was the dunking booth, where for 25 cents you got the chance to dunk a fellow Grummanite into a tank of water. Even Fred Haise, GTSI President, took his turn in the dunking booth. Donations went to the Tampa Crippled Children's Hospital.



Masters of the dunk. *Skip Olson of GTSI is on his way down into the dunk tank at the First Annual GTSI Family Picnic.*

scorecard

Hot marathon

Despite what many marathoners described as sweltering heat and stifling humidity, 13 members of the Grumman Running Club managed to finish the New York Marathon. Held on Sunday, October 28, the grueling 26 mile 385 yard race took place in temperatures as high as 75 degrees and 95 percent humidity.

"The heat and humidity were simply horrible," said Pat Masterson, a Grumman Running Club member who was forced to drop out of the race because of the conditions. "My hat is really off to those people who were able to finish the marathon," he said.

The Grumman runners who did make it to the tape in Central Park, with their times and place numbers, are: Jim Bethin, 2:57 (458); T.J. Kelly, 2:58 (493); John McKim, 3:05 (770); Dick Opsahl, 3:27 (1957); Annette Frisch, 3:32 (2364); Eileen Harper, 4:22 (7730); Jim Marron, 4:22 (7731); George Skurla, Jr., 4:27 (8269); Del Morrison, 4:40 (9800); John McErlean, 5:03 (11878); Bob Rueter, 5:18 (12679); Robert Nagy, 5:50 (13783); Ted Romer, 6:03 (13996).

Opening strong

The Grumman varsity hockey team has picked up right where they left off last season, opening this year's play with three straight victories. The defending champion Tomcats entered the 1984-85 season as the team-to-beat after winning the Long Island Industrial Hockey League's Championship Cup last year.

The team took their season opener against John's Pub by the score of 5 to 4 with last year's league scoring champ Mike LaBianca scoring four goals in an aggressive individual performance.

In game two of the new season the Tomcats showed the awesome offensive power that took them to the championship last season, as they skated past Universal Ford by the score of 14-2. Goalie Kevin Kiendle again put in a very stingy performance.

In their third game, a 9-1 win over WYNY Radio, the Tomcats showed some of their defensive depth as Kiendle shared his goalie duties with Dominick Verlezza. Both goalies combined to allow only one goal.

The veteran team is sporting several notable rookies this season including forward Nick Brigante who brings a very aggressive physical style to the squad. Two rookie defenseman, Kevin Farrelly and Jim Skopek, are said to be fitting into the team's plans well, as is third goalie Mike Murantore.

The Tomcats next take to the ice at Freeport Ice Rink on Saturday, November 17 at 10 p.m. versus the Long Island Chiefs. After that, you can see the team in a rematch of last year's championship game against the always tough Ebbetts Field. That game is scheduled for Friday, November 23 at 8:30 p.m. in the Nassau Colliseum and admission are free.

Halloween swing

Have you checked your dance card lately? If it's blank, then maybe you're ready for the Grumman Dance Club. Whether you would like to "do-si-do" or disco the night away, the Dance Club is the place for toe tappers of all ages.

Softball kings. *Vice President Bob Watkins (5th L) presents trophy to the Machine/Tool Shop team for winning the Stuart Operations intramural softball league title. Team members are (L to R) Doug McHarde, Bob Blum, Roy Myers, Bob Smith, Frank Burton, Gary Marangio, Rick Macklem, Charles Beagan, Nate Wilcox, John Kelly and Lee Evans. (Not present – Frank Little)*

Ghoulish gala. *Grumman dance club members dressed fancy and far out for their annual Halloween Costume Ball held in the Plant 28A Recreation auditorium. The Dance Club is open to all Grummanites, from boogiers to ballroom sophisticates.*

Known for keeping abreast of new dance crazes as well as keeping the traditional styles polished to a dance floor shine, the club regularly sponsors special events. Recently they held their 2nd annual Halloween costume dinner-dance. The ghoulishly fun event was held on Saturday, October 27 in the Plant 28A auditorium and was highlighted by elegant costumes.

Club member volunteers, headed by Pat Pangallo and Phyllis Kober, this year provided a haunting maze as an entry way into the Recreation Center and crowned the dance floor with a 6-foot spider on a 16-foot web.

Assorted witches and goblins on the walls and ceiling completed the wonderfully macabre scene for the costume ball. Members of the club and their guests created innovative costumes and help make the night a huge success.

Tripping the lights

In addition to the annual Halloween ball, other club activities during the year include special dance trips to Chinatown, Roseland, Flynns of Fire Island, the Airport Playhouse and many Saturday night dances.

New members are always welcome at club meetings which are held every Wednesday in Plant 28A between 5:30 and 7:30 P.M. Dance lessons in ballroom, latin, hustle and social dance sessions are offered regularly. For further information, you can contact the Dance Club secretary, Susan Koppell at Ext. 115-3800.

A .500 season

At Glen Arm, Maryland, the Plant 56 varsity softball team recently ended its 1984 fall season with a 7-7 record. The Tomcats, co-managed by Rick Kratzmeier and Mike Holston, competed in the Joppa Town League.

Tomcat team members included Jim Swearingen, John Hall, John Geuthler, Dave Wintz, Joe Svach, Chris Linz, Joe Sann, John Williamson, Jim Eastridge, Mike Rutherford, Mike Tama Jr., Mike Burton, Ed Reed, Andy Lawrence, Alan Pietra, and Len Barock.

Plans are already in the works to enter the Tomcats in the spring competition.

Striking performance

Clarence Delancy of Stuart Operations (Fla.) missed rolling a perfect game. He had to settle for a 289.

He threw 10 strikes in a row and then left the four-pin standing. He finished out the game in the Grumman Stuart Mixed Bowling League with a spare.

Was he nervous when he realized how many strikes he had thrown? "No. For some reason, I wasn't nervous that night," recalls Delancy. "Now, if it had been a men's league, I might have been a little nervous, but not in a family league."

This bowler is definitely a positive thinker. He claims that he'll reach 289 again this season — maybe even 300.

Urce hooks prize-winning rug

An oriental-design hooked rug as beautiful as any magic carpet in the stories of the Arabian Nights took top honors as best-in-show for Grumman retiree Carmine Urce at the annual Recreation Hobby Show.

Held from Thursday, October 11 through Sunday, October 14, the show was an "unqualified success," as more than 100 entries were exhibited. Bob Myers, Senior Vice President-Business and Resource Management, was on hand Friday, October 12, to present awards to the winners of prizes in 20 different categories from ceramics to woodworking.

Urce, a retire who worked in the Plant 5 model shop, said his work experience had little to do with his new hobby other than making him used to working with his hands on detailed projects. "I was surprised to win anything let alone best-in-show," said Urce. "I had entered many past hobby shows when I was working at Grumman but this is the first time that I won anything."

Prize-winning present

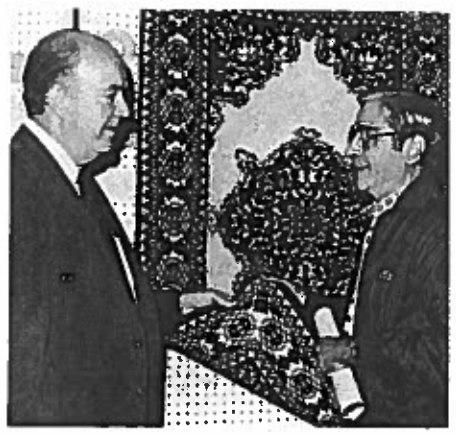
Urce said that making the hooked rug, which has over 20,000 knots and took more than eight weeks was a real challenge. "I made the piece as a Christmas present for my son. He keeps it in front of his fireplace. I've made several others as well as some small wall hangings, but this is the only one that I've ever entered in a contest — and I'm very pleased with the results," he noted.

Dual winner

Urce also took the Hobby Show's Special Retiree Award, making it a two-for-one winning day for him.

The following is a listing of the winners in each category (in order of finish):

Ceramics: Kathleen Bossing, Mary Wakulinski and Lois McIntyre.
Collections - Coin, Stamp & Miscellaneous: Robert E. Weiss.
Crocheting: Mary Hahn, Josephine Gorlesky and Joanne Petersen.
Embroidery/Crewel: Joane Whelan, Maryann Tierney and Frances Azzarello (retired).
General: Shirley Catalano, Mary Hahn and Amy Blackwell.
Knitting: Mary Hahn, Diane Crowe and Vera Janicijevic.
Hooked Rug: Carmine Urce (retired), Debbie Kozerski and Maryann Tierney.
Models - Miscellaneous: Frank Ciavolella, John Buzzerio and William Barto.
Model Planes - Flying - Scale: Ron Farkas and Wally Kranz.
Model Planes - Flying - Non-Scale: David Karpiloff (retired).
Model Planes - Non-Flying - Scale: John Donohue, William Barto and Robert DeMaio.
Model Railroads - Rolling Stock: Ray Muntz.
Model Railroads - Roadside Scenery: Frank Calderone and Ray Munz.
Needlepoint: Joanne Petersen, Janice Nesta and Kathleen Bossung.
Sewing/Quilting: Janice Nesta, Debbie Kozerski and Catherine Coulton (retired).
Ship Models - Kits: Edward N. Miller, William E. Burn (retired) and Jeff Quarles.
Ship Models - Original Design: Edward N. Miller.
Wood Carving: Joe Kouchinsky, Carole Seymour and James Iannone.
Wood Working: Gerald Halpern, Stan Zadroga and Herbert Gilcher.



Magic carpet. *Retiree Carmine Urce (R) displays his best-in-show hooked rug to Senior Vice President Bob Myers who was on hand to present the awards at the annual Recreation Hobby Show held in Plant 28A last month. Urce also won the show's Special Retiree, Award.*

Fleet feet

The Grumman Runners Club is developing a very competitive women's running team. In the recent Town of Islip Great South Bay Run, three Grumman women runners distinguished themselves. The dual event offered runners the choice of a 10-kilometer or a 13.1 mile half-marathon run.

Eileen Miller of Grumman Data Systems took the trophy for third place in her 20-29 year age group in the 10-kilometer race. Grumman Aerospace running veteran Annette Frisch was the first place finisher in the women's 40-49 age group for the half-marathon while running team newcomer Eileen Harber of Grumman Aerospace finished the race in third place in the 20-29 age group. All three say they are looking forward to continued success "on the road."

Bocce bosses. *This year's Plant 6 bocce league winners are the Compara's: (L to R) Ralph Miranda, Pete Perrino, Nino Bosco, Gus Ring, Bill Stevens and Recreation representative Ernie Maggi.*

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